

*1969*  
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ORD 4282-69

16 JUL 1969

MEMORANDUM FOR: Chief, Optics/ORD *file*

SUBJECT: Trip Report to [redacted]  
8 July 1969

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1. Tuesday, 8 July 1969, [redacted]  
[redacted] of Optics/ORD and [redacted] of NPIC/TSSG/ESD/EL  
visited [redacted] in [redacted] to  
discuss work progress on the fast-scanning IDT. Trip  
participation by both [redacted] from O/ORD should  
facilitate the transition of monitors for on-going contracts  
concerning the IDT at [redacted] from NPIC was  
included since the equipment will ultimately be installed  
at NPIC.

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2. [redacted] of [redacted] stated that approximately  
85% of the equipment had been bought and delivered for the  
two contracts: "Proposed Modifications for the Fast IDT,"  
[redacted] and "IDT Computer Display System," [redacted]  
This 85% consisted of all long lead time items. The remainder  
of the items to be purchased consist of things such as power  
supplies, racks, logic modules, etc.

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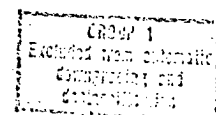
3. The only long lead item necessary for the latest  
contract to make the IDT and display an "off-line" system  
is the tape transport unit. It will be purchased in the  
near future with an expected 6 month delivery date. [redacted]  
[redacted] stated that having the tape transport three months  
earlier, however, would speed delivery of the IDT system  
to NPIC by about two months.

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4. [redacted] stated that the logic design and wiring  
for the entire system was 65% complete and progress on the  
IDT modification progressing on schedule. He was confident  
that the system could be delivered as per the schedule given  
in Proposal No. TO-B 53-69, "IDT Computer Display System  
Modification".

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5. The computer programming for the Honeywell DDP-416 computer, which will control the IDT system, is about 90% complete. I asked the contractor [ ] to place sufficient comments in the programs to facilitate easy and rapid changes by the users. The programs are being designed to give an IBM 360, Fortran IV, compatible tape output from the tape transport. The tape must be 360 compatible since the operating system for the Univac at NPIC is much too small to handle the type of image processing necessary with the IDT. The tape unit presently planned is a 7 track device, but the contractor is trying to obtain a 9 track unit for approximately the same cost. A 9 track unit is compatible with more tape units here in ORD and at Headquarters.

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6. The contractor was asked to check on the possibility of changing the 8th bit associated with density level to actually being another bit in determining the density level of a picture point. This 8th bit is now a direction bit which will be redundant information once the IDT is modified. The greater number of grey levels available would decrease the noise problems in data manipulation. It is understood that this possible change does not otherwise affect the contract as stated.

7. The contractor requested to make a change in the sampling increments from: 1, 2, 3, 5, 12, 25, 50, 125, and 250 microns to 1, 2, 4, 8, 16, 32, 64, 128, and 256 microns. The proposed change would allow the contractor to use binary counters for sampling increment determination, thus eliminating a much more complicated design. This change appears to be totally reasonable and the contractors were instructed to continue to consider this possible change. I have a copy of the details of this proposed change.

8. The contractor was encouraged to make a trip to [ ] before deciding on a final equipment layout, to arrive at an optimum spacing allotment.

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9. The contractor is improving the hard copy capability of the IDT equipment by placing an electronically controlled servo system on the Alden recorder to sink it with the IDT output. The contractor is also looking for a better recorder that could be purchased for approximately the same cost allocated to improving the Alden.

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10. The contractor was asked to look into the possibility of placing micrometer X and Y adjustments on the final table to allow fine adjustment of photography.

11. The contractor reminded us that Honeywell has maintained an opening for one person for a one or two week programming course for the DDP-416 and also another opening for a technician to take a maintenance course. We told the contractor we would postpone this training until a few weeks before the equipment is delivered. *RED/EL* *ESD/EPB* *inform 11 Aug 69* 25X1

12. I was shown through the Optics Department and given an overall view of the present projects of concern



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